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(54) A package for one or more candy bars

(57) A package for one or more candy bars (4) or similar products, which package is made of a substantially rectangular foil sheet (1), a first part (5) of which is adhered, near a first cathetus thereof, to a second part (6), near a second cathetus positioned opposite said first cathetus, thus forming a tubular holder comprising

a longitudinal seal (2) positioned outside said holder. The tubular holder is closed at both ends. The first cathetus is provided with a cut (7) which extends from the edge of the foil, substantially perpendicularly to said cathetus.

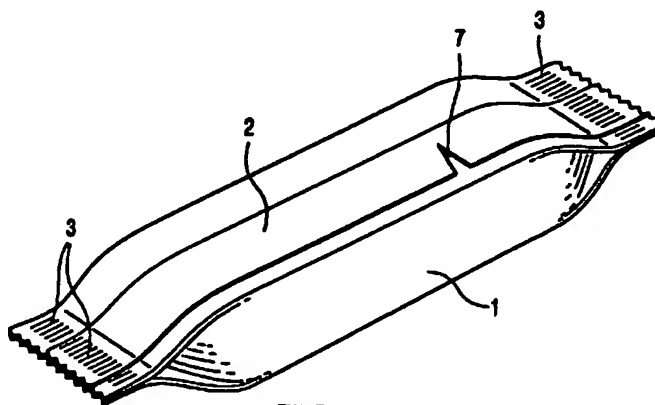


FIG. 2

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## Description

[0001] The invention relates to a package for one or more candy bars or similar products, and to a method for manufacturing such a package. The package is made of a substantially rectangular foil sheet, a first part of which is adhered, near a first cathetus thereof, to a second part, near a second cathetus (rectangular side) positioned opposite said first cathetus, thus forming a tubular holder comprising a longitudinal seal positioned outside said holder, which tubular holder is closed at both ends. The foil usually consists of one or more layers of a plastic material, and the seal is formed by joining parts of said foil by heating said parts and/or interpolating an adhesive, so that an airtight seal is obtained.

[0002] Such a package for a candy bar or for a number of candy bars together is known per se, and the two ends of the tubular holder are generally closed by means of a seal, which is formed in the same manner as the aforesaid longitudinal seal. The longitudinal seal preferably butts against the tubular holder.

[0003] Preferably it must be possible to open such a package without using special aids. To that end it is known, for example, to form a seal, in particular a seal present at the end of the tubular holder, with a serrated edge, whereby the serration is the starting point from where the package can be torn open. In practice it has become apparent that such a method of opening the package is not always satisfactory.

[0004] The object of the invention is to provide a package which can be opened by hand in a relatively simple, easy and controlled manner without using any additional aids.

[0005] In order to accomplish that objective said first cathetus is provided with a cut which extends from the edge of the foil, substantially perpendicularly to said cathetus. Such a cut may consist of a V-shaped recess, which has been provided in the edge of said foil. In one preferred embodiment said cut has been provided in the foil material without removing any material.

[0006] Such a cut preferably extends into the seal and constitutes a weak spot in the foil material, which weak spot forms the starting point of a tear that is formed in the foil material when an appropriate force is exerted on said material. It has become apparent that opening the package made up of the foil is much simpler and easier if such a cut is provided in the foil at the location of the longitudinal seal.

[0007] The aforesaid parts that form the longitudinal seal preferably extend parallel to the nearby cathetus in strips of substantially the same and constant width, which strips have been adhered together, whereby all foil areas within the strip that are in contact with each other have been adhered together. The longitudinal seal may thereby be formed by providing the inner side of the foil, that is, the side that butts against the packaged candy bar, with two strips of adhesive, which may be

applied continuously when the foil material passes a dispenser for the adhesive. The tubular holder is subsequently obtained by pressing the two strips together so as to form the seal which is present outside the tubular holder.

[0008] Preferably the foil material, or the material of one of the layers that make up the foil, has an oriented structure, so that a tear in the foil will always extend in a predetermined direction. In that case the foil is used in such a manner that said direction extends substantially perpendicularly to the direction of the longitudinal seal.

[0009] In particular when foil having an oriented structure is used, the package can be opened without difficulty when a single cut extending into the seal is provided, preferably in the two layers that form the seal, which cut is located near the end of the package, that is, near the end of the packaged candy bar. When the package contains two candy bars positioned one behind the other inside the package, seen in longitudinal direction, the cut may be provided in the center of the longitudinal seal, whereby the package can be bent in the center in order to form the tear.

[0010] Consequently the location of the single cut depends on the number of products which are present inside the package, and on the place where said products are present. The cut must be located near the end of a product thereby.

[0011] In a preferred embodiment there is made use of foil consisting of one or more layers of a homogeneous material without any oriented structure and is the cut near the end of the package. In such embodiment it appeared that the tear will extend slantwise which results in a surprisingly easy separation of the package into two parts.

[0012] In another preferred embodiment which is made use of foil consisting of one or more layer where at least one has an oriented structure, a recess which extends from said second cathetus is present in said second part of the foil, and said first cathetus is provided with two spaced-apart cuts, which terminate near the edge of said recess. Due to the presence of two cuts which are spaced apart by some distance, preferably a distance of 5 - 20 mm, more preferably a distance of 8 - 15 mm. The portion of the foil that is present between the two cuts can be taken hold of with two fingers so as to pull away that portion of the foil. Said pulling away of this portion of the foil is possible because said portion has not been adhered in the seal as part thereof, because the other part which forms the seal (said second part) is provided with a recess.

[0013] In this embodiment the two cuts as well as the recess may be provided in the foil before the longitudinal seal is formed, and possibly before the adhesive is applied to the foil. However, preferably the two cuts are provided after the longitudinal seal has been formed.

[0014] In another embodiment a recess which extends within said second part is present in the foil, which recess has been provided prior to the forming of the

seal, after the forming of said seal the first and the second cathetus have been provided in corresponding places with two spaced-apart cuts, which terminate near said recess. Thus a portion of the seal is formed which can be taken hold of with the fingers and be pulled away, whilst the two layers that form the seal are pulled apart, starting from said recess, in the same manner as is the case with the above-described embodiment that comprises a recess which extends to the edge of the foil.

[0015] In another preferred embodiment a cut which extends substantially in longitudinal direction is present in said second part of the foil, which cut may be provided before the seal is formed or before the adhesive is applied to the foil. After the seal has been formed, two spaced-apart cuts are provided in corresponding places in the first and the second cathetus, which cuts terminate near the aforesaid cut in said second part. With this embodiment no material needs to be removed from the foil, which is advantageous with regard to the manufacture of the package.

[0016] In another preferred embodiment the edge area of the foil along the first cathetus extends outside said first part, beyond the seal, therefore, and the first cathetus is provided with two spaced-apart cuts. This makes it possible to take hold of the portion of the foil between the two cuts that does not form part of the seal with the fingers and pull it loose so as to open the package.

[0017] Further aspects of the invention, which may be used either separately or in combination with other aspects, are disclosed in the description of the figures and defined in the claims.

[0018] For a better understanding of the invention a few embodiments of a package will be described with reference to the drawing.

Figure 1 is a perspective view of a packaged candy bar;

Figure 2 shows the same package in another position thereof;

Figure 3 is a cross-sectional view of a packaged candy bar;

Figure 4 shows the foil of the package of Figure 2;

Figure 5 is a perspective view of a second embodiment;

Figure 6 shows the foil of the package of Figure 5;

Figure 7 is a perspective view of a third, a fourth and a fifth embodiment;

Figure 8 shows the foil of the package of the third embodiment;

Figure 9 shows the foil of the package of the fourth embodiment;

Figure 10 shows the foil of the package of the fifth embodiment;

Figure 11 shows the foil of the package of a sixth embodiment;

Figure 12 is a cross-sectional view of a packaged

candy bar according to the sixth embodiment;

Figures 13-16 show the opening by hands of a package according to figures 2-4;

Figures 17-20 show the opening by hands of a package according to figures 5 and 6;

Figures 21-24 show the opening by hands of a package according to figures 7 and 8; and

Figures 25-29 show the opening by hands of a package made out of foil without an oriented structure.

[0019] The figures are merely diagrammatic representations, wherein corresponding parts are numbered alike.

[0020] Figure 1 is a perspective view of a package which contains one or more candy bars, which are packaged in an airtight manner therein. The package consists of foil sheet 1, which comprises a longitudinal seal 2, only the end of which is visible in Figure 1. Longitudinal seal 2 forms a tubular holder, whose ends are closed by means of a seal 3.

[0021] Longitudinal seal 2 is present outside the tubular holder and butts flat against the package, as is shown in Figure 2.

[0022] Figure 3 is a cross-sectional view of a candy bar 4, which is packaged in foil 1 as shown in Figure 2. As shown in Figure 3, two parts 5, 6 of the foil (first part 5 and second part 6) are adhered together by means of an adhesive, so that parts 5, 6 together form longitudinal seal 2, which butts flat against the package of candy bar 4. Second part 6 thereby butts against the outer side of the said tubular holder.

[0023] The hatched parts in Figures 4, 6, 8, 9, 10 and 11 represent parts 5 and 6 (strips) to which the adhesive has been (or will be) applied and which form the longitudinal seal.

[0024] Figure 4 shows the foil of the package shown in Figure 2 in unfolded condition. In this first embodiment longitudinal seal 2 comprises a cut 7, which cut is provided in both parts 5, 6 of foil 1. Said cut is preferably provided after the forming of seal 2, and as shown in Figure 2 it consists of a V-shaped recess, which extends from the edge of the foil.

[0025] Figures 5 and 6 show a second embodiment, into which a cut 8 has been provided, likewise after the forming of seal 2, which cut consists of a single slit in seal 2, which extends from the edge of foil 1 and whereby no material is removed.

[0026] With the first and the second embodiment the package can be opened by taking hold of seal 2 with both hands on either side of the cut 7,8, and pulling it apart. In case the foil of the package has an oriented structure, in such a way that a tear in the foil will always extend perpendicular to the seal 2, the cut 7,8 thereby forms the starting point of a tear which separates the package completely or nearly completely into two parts. If one candy bar is present in the package, the cut 7,8 must be present near the end of the package, but if two

bars lie one behind the other in longitudinal direction, the cut may be provided in the center (second embodiment), so that the package can be bent during tearing, thus forming the tear between the two candy bars.

[0027] Figure 7 is a perspective view wherein part 5 of longitudinal seal 2 is provided with two cuts 9. The spacing between said two cuts 9 has been selected such that it is possible to take hold of the part present between the cuts with the fingers. Figure 7 is the perspective representation of three embodiments (the third, the fourth and the fifth embodiment), wherein different cuts have been provided in second part 6 of foil 1, as is shown in Figures 8, 9 and 10.

[0028] In the third embodiment, the foil 1 of which is shown in Figure 8, first part 5 comprises two cuts 9, whilst second part 6 is provided with a recess 10, which extends from the edge of the foil into part 6. Due to the presence of recess 10, that portion of part 5 which is present between cuts 9 can be taken hold of with the fingers so as to be pulled loose.

[0029] Figure 9 shows a fourth embodiment, which comprises a recess 11 formed in second part 6 of foil 1, which recess is located entirely within part 6. After longitudinal seal 2 has been formed, cuts 9 are provided, as well as cuts 12 in part 6, which cuts 12 coincide with cuts 9 in part 5 of foil 1. The portion of the seal that is present between cuts 9, 12 must be taken hold of in order to tear the package open.

[0030] Figure 10 shows a fifth embodiment, which substantially corresponds with the fourth embodiment, but wherein a cut 13 has been provided instead of a recess 11. Cut 13 is provided before the seal is formed, and cuts 9, 12 are provided after said seal has been formed. In this embodiment no material needs to be removed from foil 1, which is advantageous with regard to the manufacture of the package.

[0031] Figure 11 shows foil 1 of a sixth embodiment, which comprises a strip 14 of foil 1, on which no adhesive is present, beside the part 5 on which the adhesive is present.

[0032] Figure 12 is a cross-sectional view which corresponds with Figure 3, which shows that said strip 14 extends beyond seal 2. Two cuts 15 are provided in said strip 14. The package according to this embodiment can be opened by taking hold of the portion of foil 1 that is present between said cuts 15 and tearing the package open by pulling. The strip 14 extending beyond the seal 2 may be provided with adhesive, but nevertheless strip 14 will not be glued to other material, because such other material is not present.

[0033] Figure 13 shows the packaged candy bar according to the first embodiment (Figures 2-4) and two hands 21,22 gripping the longitudinal seal 2. Figure 14 shows how the two hands 21,22 are moved away from each other (arrow 23), so that the package tears starting with cut 7 resulting in two separated parts 24,25 of the package (Figure 15). The bigger part 24 can be hold in the hand 21 and the candy bar 4 can be brought out of

the part 24 by squeezing the part 24 by hand 21 (Figure 16). The straight tear is perpendicular with respect to the seal 2 can be achieved by making the package out of a foil having an oriented structure, so that a tear in the foil will always have a predetermined direction.

[0034] Figure 17 shows a package containing two candy bars and a cut 8 in the middle of the package. Hands 12,22 can grip the longitudinal seal 2 and separate the package into two equal parts 24,25 (Figures 18 and 19). Each hand 21,22 can squeeze a candy bar 4 out of the respective part 24,25 of the package (Figure 20).

[0035] The opening of the third, fourth, fifth or sixth embodiment is shown in figure 21-24. Thereby a strip 26 of the foil is pulled away (Figure 21) in the direction of arrow 27 (Figure 22). Then the package can be separated in two parts 24,25 (Figure 23) whereby one part 24 contains the candybar 4 (Figure 24).

[0036] Figures 25-29 show the opening by hands 21,22 of a package made out of a foil any orientation i.e. made out of a homogeneous material. After each hand 21,22 has gripped the longitudinal seal 2 at both sides of the cut 7 (figure 25) hand 22 starts to turn in the direction of arrow 30 (figure 26). The foil will tear in such direction that a small strip 31 of foil material will be present between the two parts 24,25 of the package (figure 27). Because of the presence of strip 31 between the two parts 24,25 of the package it is possible to reduce the dimension of part 24 if desired. Figure 28 shows the situation whereby the two parts 24,25 are separated after which the candy bar 4 can be brought out of part 24 by squeezing the part 24 by hand 21 (figure 29).

The above-described embodiments are to be considered merely as examples of a package according to the invention.

#### Claims

1. A package for one or more candy bars (4) or similar products, which package is made of a substantially rectangular foil sheet (1), a first part (5) of which, near a first cathetus thereof, is adhered to a second part, near a second cathetus positioned opposite said first cathetus, thus forming a tubular holder comprising a longitudinal seal (2) positioned outside said holder, which tubular holder is closed at both ends, characterized in that said first cathetus is provided with a cut (7;8;9;15) which extends from the edge of the foil (1), substantially perpendicularly to said cathetus.
2. A package according to claim 1, characterized in that the aforesaid parts (5,6) extend in strips of substantially the same and constant width, parallel to the nearby cathetus, which strips have been adhered together, thus forming the longitudinal seal (2), whereby all foil areas within the strip that are in

contact with each other have been adhered together.

3. A package according to claim 1 or 2, characterized in that a recess (10) which extends from said second cathetus is present in said second part (6) of the foil (1), and that said first cathetus is provided with two spaced-apart cuts (9), which terminate near the edge of said recess (10). 5
4. A package according to claim 1 or 2, characterized in that a recess (11) which extends within said second part (6) is present in the foil (11), and that said first and said second cathetus are provided in corresponding places with two spaced-apart cuts (12), which terminate near said recess (11). 10 15
5. A package according to claim 1 or 2, characterized in that a cut (13) which extends substantially in longitudinal direction is present in said second part (6) of the foil (1), and that said first and said second cathetus are provided in corresponding places with two spaced-apart cuts (12), which terminate near said cut (13) in said second part (6). 20 25
6. A package according to claim 1 or 2, characterized in that the edge area (14) of the foil (1) along the first cathetus extends outside said first part (5), beyond the seal (2), therefore, and that the first cathetus is provided with two spaced-apart cuts (15). 30
7. A package according to claim 1 or 2, characterized in that both the first and the second cathetus are provided with a cut (7;8), which two cuts coincide and extend into the longitudinal seal (2), which two coinciding cuts (7;8) are present near the end of the tubular holder or near the center of the tubular holder. 35 40
8. A package according to any one of the preceding claims, characterized in that the foil (1) consists of one or more layers of material, wherein at least one layer of material has an oriented structure, as a result of which a tear in the foil will preferably extend perpendicularly to said cathetus. 45
9. A package according to claim 1 or 2, characterized in that both the first and the second cathetus are provided with a cut (7;8), which two cuts coincide and extend into the longitudinal seal (2), which two coinciding cuts (7;8) are present near the end of the tubular holder, whereby the foil is made out of one or more layers of a homogeneous material. 50 55
10. A method for manufacturing a package for one or more candy bars or similar products, wherein a first part (15) of a substantially rectangular foil sheet (1)

is adhered, near a first cathetus thereof, to a second part (6), near a second cathetus positioned opposite said first cathetus, thus forming a tubular holder comprising a longitudinal seal (2) positioned outside said holder, which tubular holder is closed at both ends, characterized in that said first cathetus is provided with a cut (7;8;9;15) which extends from the edge of the foil (1), substantially perpendicularly to said cathetus.

11. A method according to claim 10, characterized in that an adhesive is applied to at least one of said parts (5,6) in a continuous strip of substantially constant width, parallel to the nearby cathetus, after which said strips are adhered together, thus forming the longitudinal seal (2), wherein all foil areas within the strip that are in contact with each other are adhered together.
12. A method according to claim 10 or 11, characterized in that a recess (10) which extends from said second cathetus is provided in said second part (6) of the foil (1) before said two parts (5,6) of the foil (1) are adhered together, and that two spaced-apart cuts (9), which terminate near the edge of said recess (10), are provided in said first cathetus.
13. A method according to claim 10 or 11, characterized in that a recess (11) which extends within said second part is provided before said two parts (5,6) of the foil (1) are adhered together, and that two spaced-apart cuts (9), which terminate near said recess (11), are provided both in said first and in said second cathetus after said parts (5,6) have been adhered together.
14. A method according to claim 10 or 11, characterized in that a cut (13) which extends substantially in longitudinal direction within said second part (6) is provided before said two parts (5,6) of the foil (1) are adhered together, and that two spaced-apart cuts (9,12), which terminate near said cut in said second part (6), are provided both in said first and in said second cathetus after said two parts (5,6) have been adhered together.
15. A method according to claim 10 or 11, characterized in that two spaced-apart cuts (15) are provided in said first cathetus, wherein the edge area (14) of the foil (1) along the first cathetus extends outside said first part (5), beyond said longitudinal seal (2), therefore.
16. A method according to claim 10 or 11, characterized in that both said first and said second cathetus are provided with a cut (7;8), which two cuts (7;8) coincide and extend into said longitudinal seal (2).

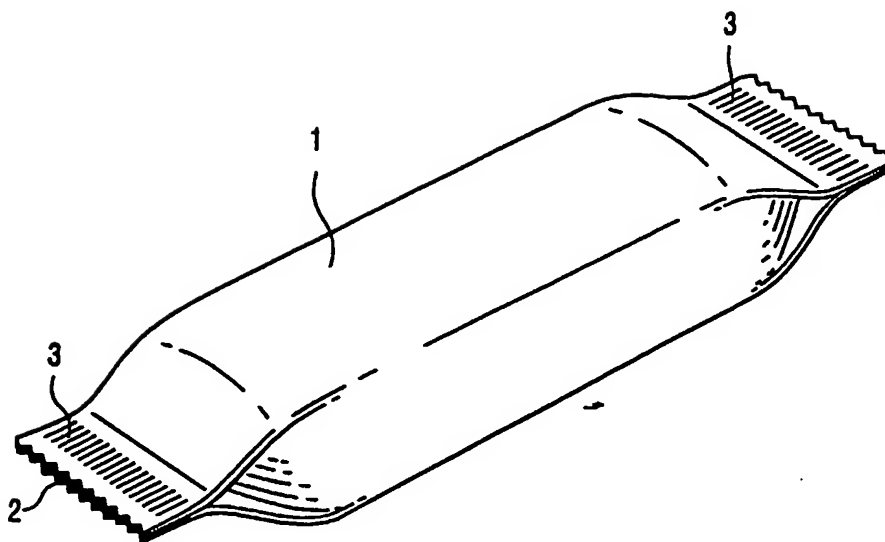


FIG. 1

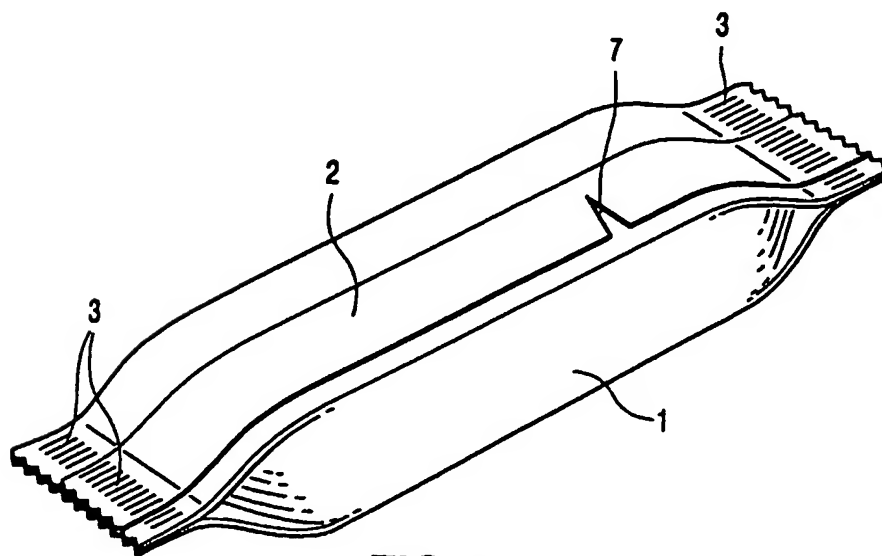


FIG. 2

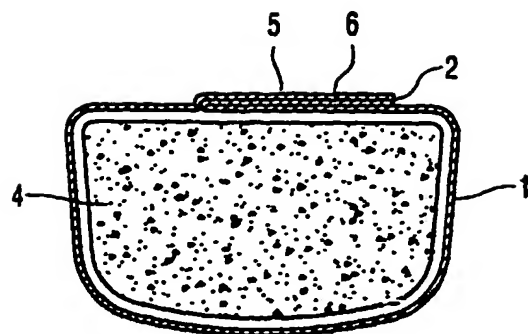


FIG. 3

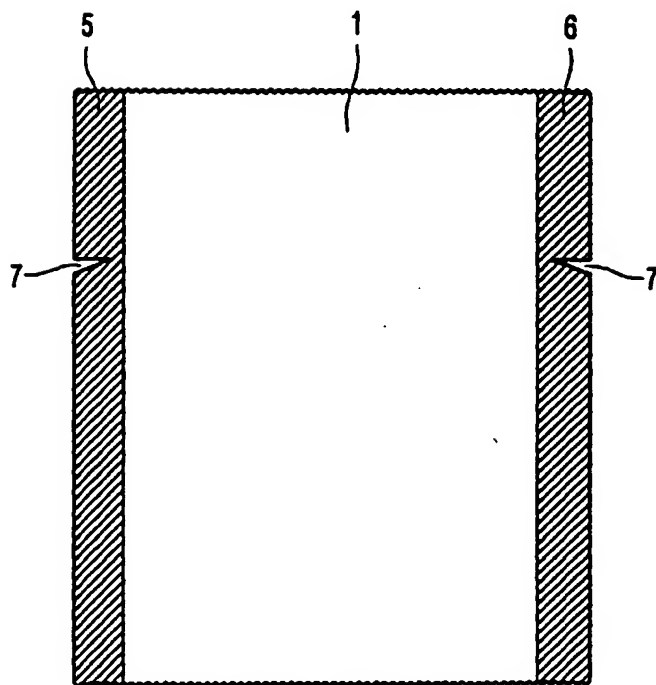


FIG. 4

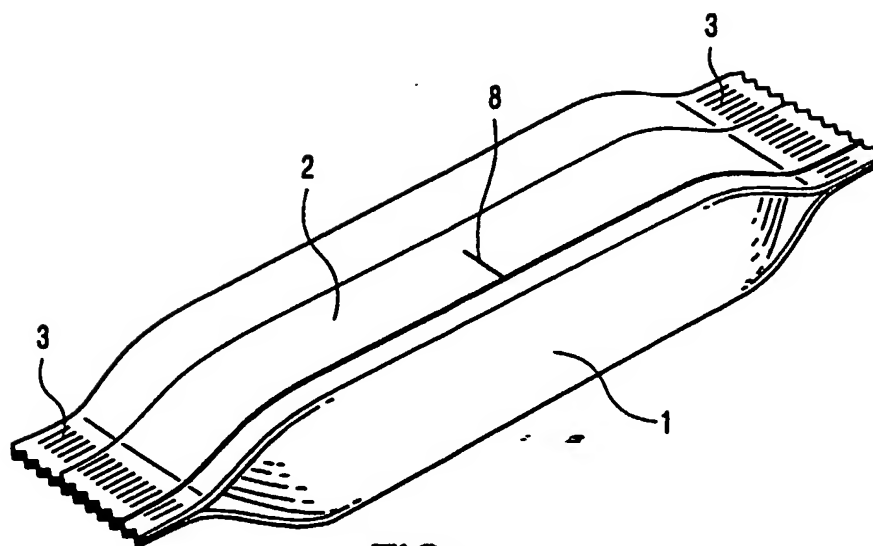


FIG. 5

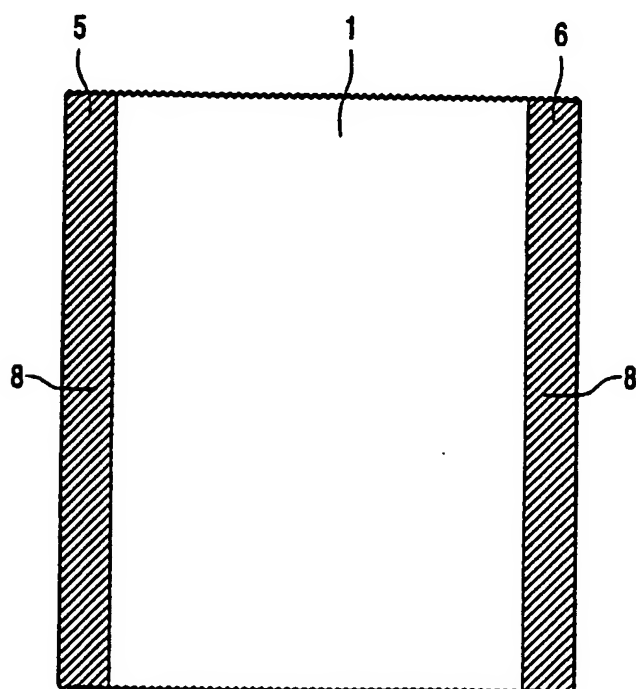


FIG. 6



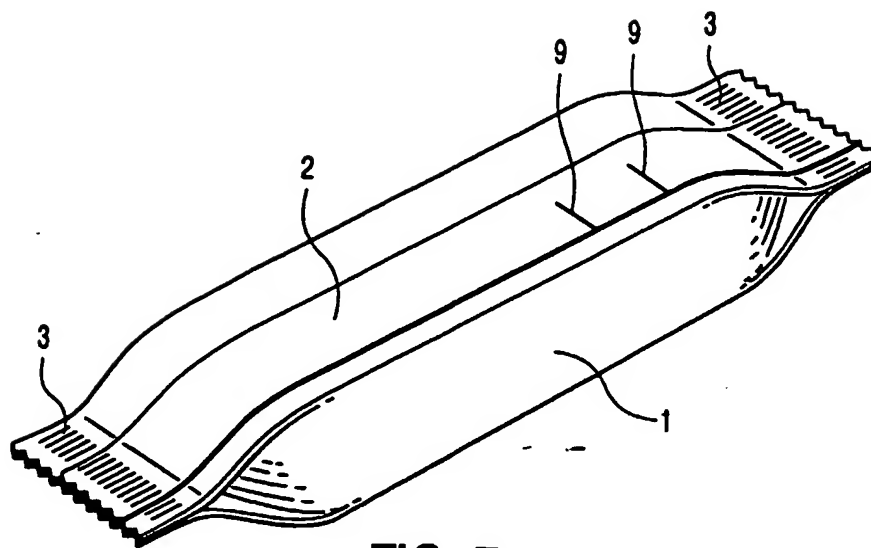


FIG. 7

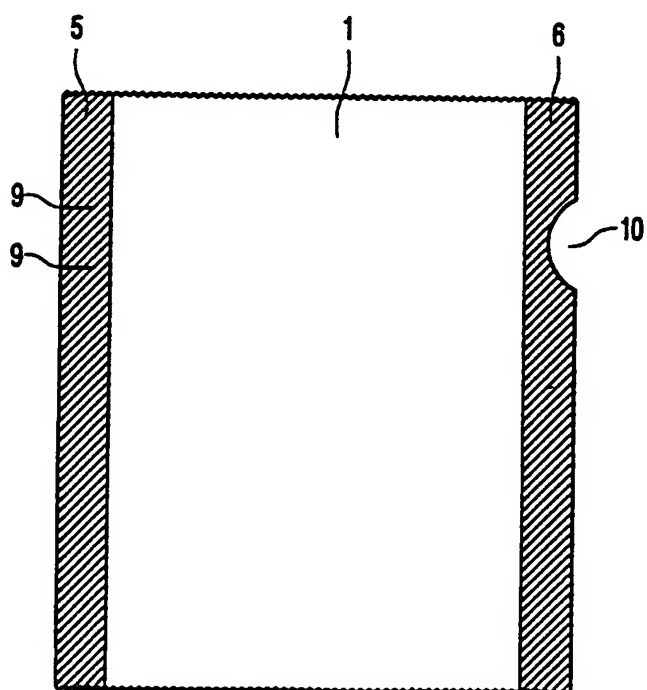


FIG. 8

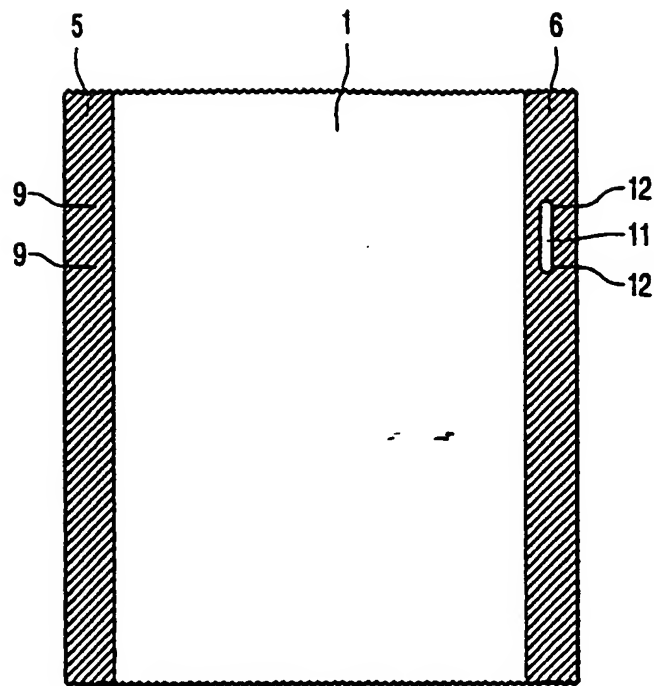


FIG. 9

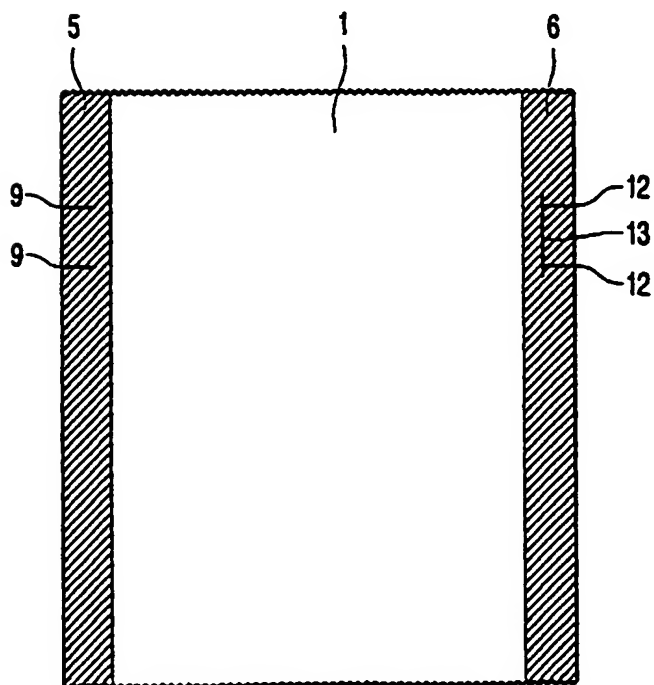


FIG. 10

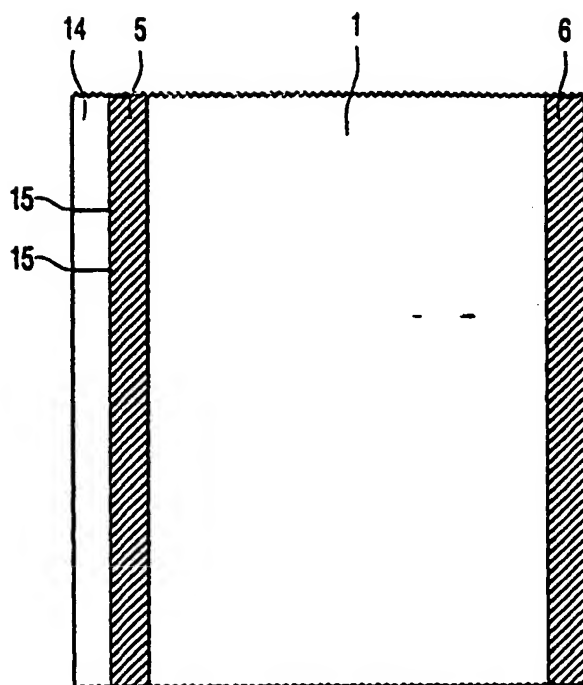


FIG. 11

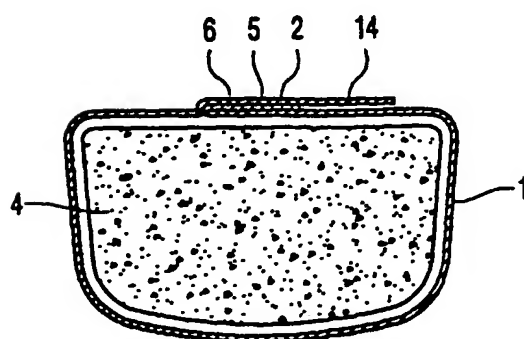


FIG. 12

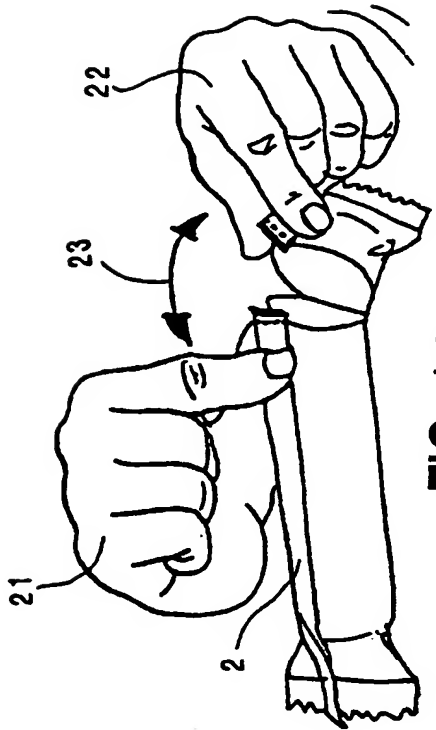


FIG. 13

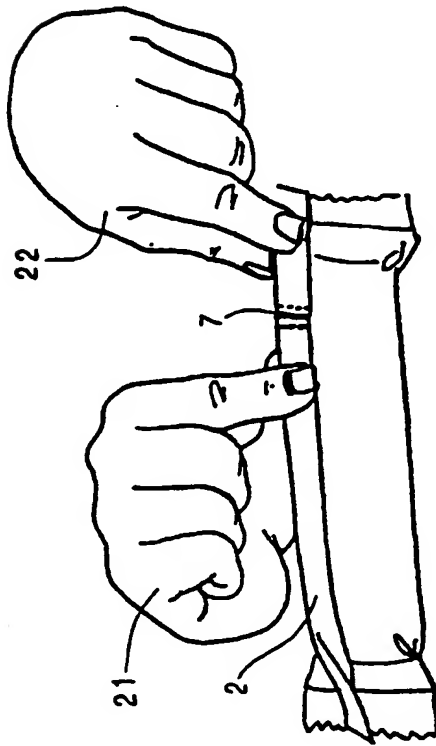


FIG. 14

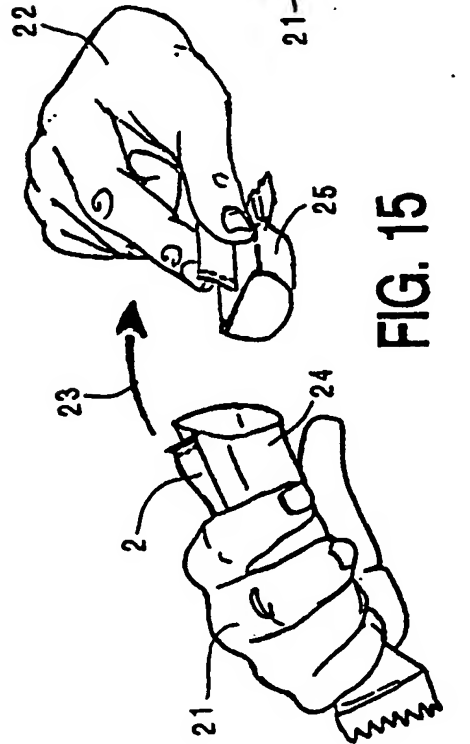


FIG. 15

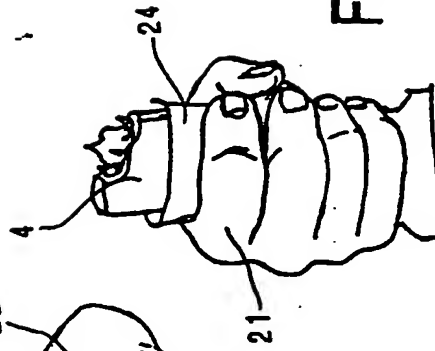


FIG. 16



FIG. 18

FIG. 17

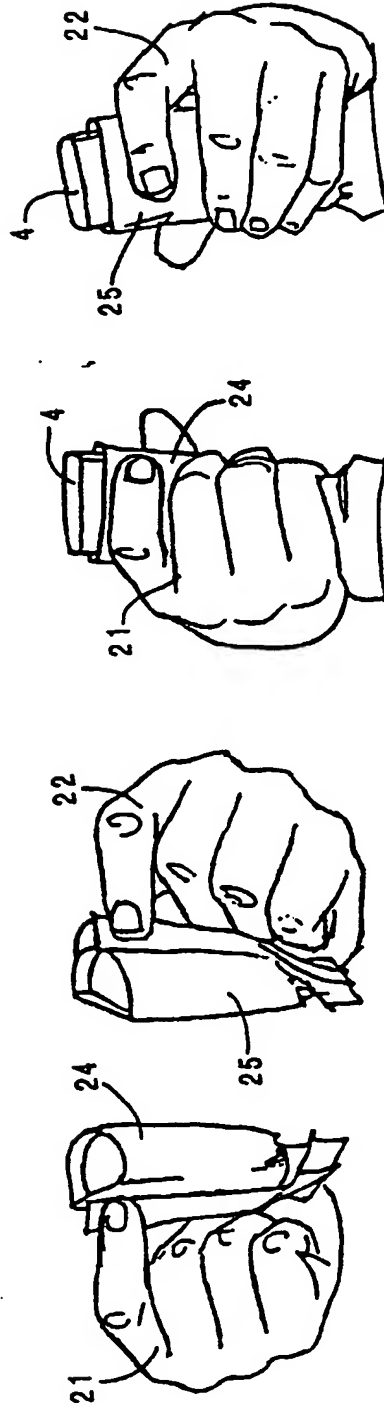


FIG. 20

FIG. 19

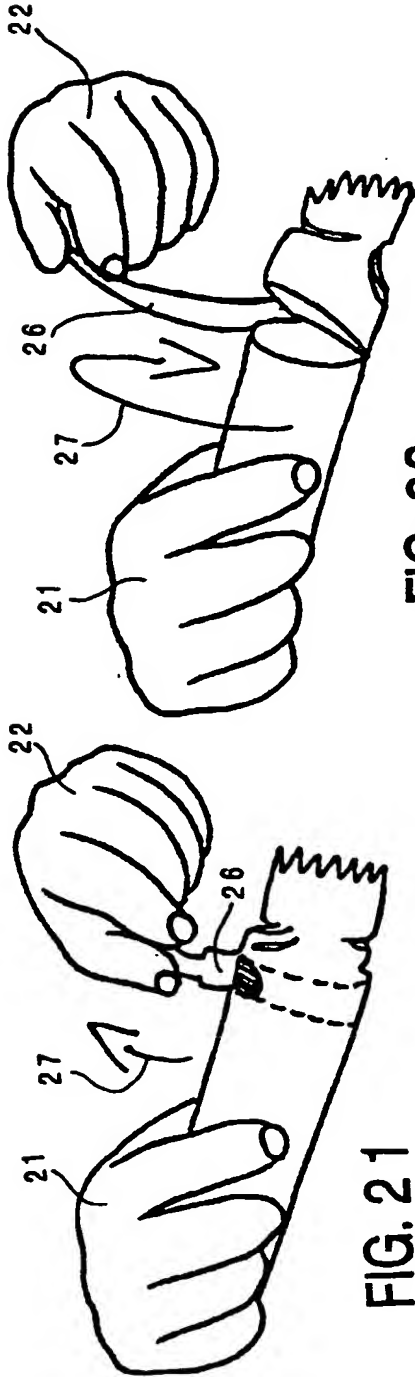


FIG. 21

FIG. 22



FIG. 23

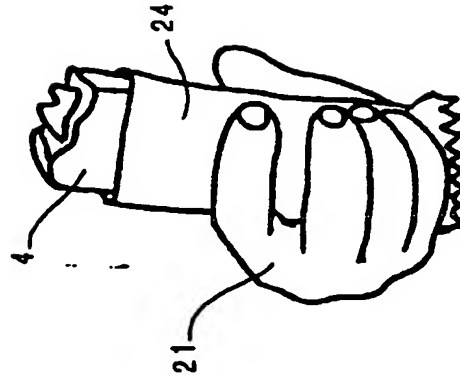


FIG. 24

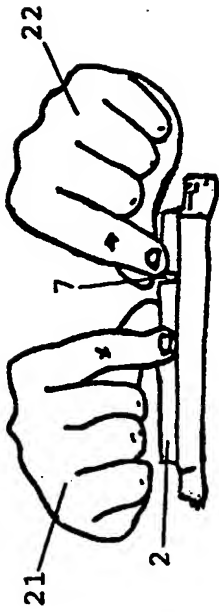


FIG. 25

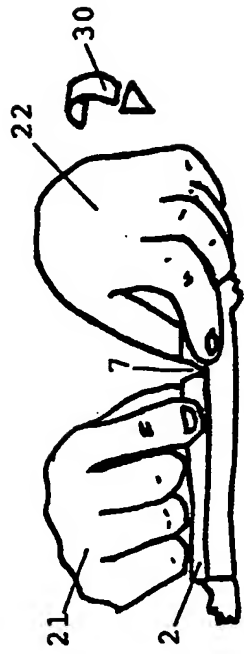


FIG. 26

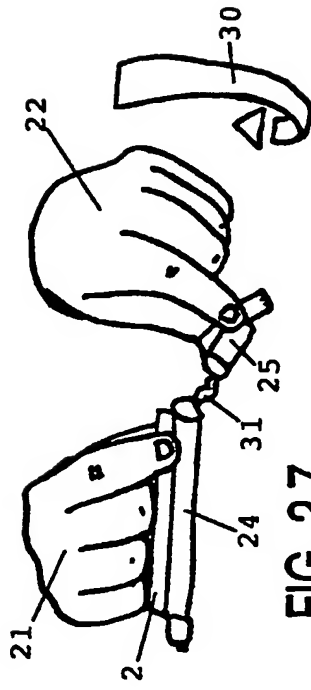


FIG. 27

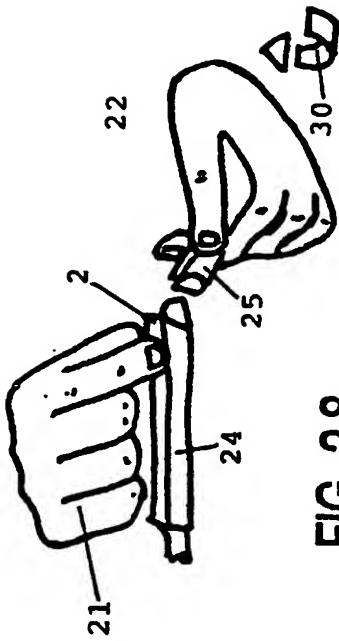


FIG. 28

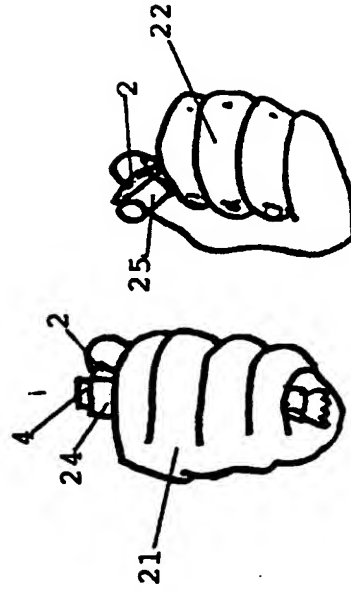


FIG. 29



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 98 40 1131

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	WO 91 06488 A (TEICH AG) 16 May 1991	1-3,6,7,9	B65D75/12
Y	* page 10, paragraph 2; figures 1,2,5 *	4,8	
Y	WO 93 06023 A (TEICH AG) 1 April 1993	4	
A	* figure 1 *	1	
Y	EP 0 779 222 A (JUJO PAPER CO LTD) 18 June 1997	8	
A	* claim 1; figures 1,2 *	1	
X	CH 651 795 A (SIG SCHWEIZ INDUSTRIEGES) 15 October 1985	1,2,10,16	
	* claims 1,8; figure 1 *		
X	DE 84 25 417 U (HUECK & CIE) 11 October 1984	1,2,7,9	
	* the whole document *		
X	WO 92 15497 A (LOHMANN GMBH & CO KG) 17 September 1992	1,6,7,9	
	* page 6, line 16 - line 21; figures *		
A	US 2 171 459 A (THOMPSON) 29 August 1939	1	
	* figures *		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
Place of search	Date of completion of the search	Examiner	
BERLIN	20 October 1998	Spettel, J.	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 03/92 (P/C01)